

**BEST AVAILABLE COPY**

**PATENT**  
**ATTORNEY DOCKET NO. 01942-00003**

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of:	)	
	)	
Eija Marjut Pirhonen	)	Examiner:
	)	Camie S. Thompson
Serial No.: 09/981,676	)	
	)	Art Unit: 1774
Filed: October 16, 2001	)	
	)	
Title: BONE GRAFTING MATERIALS	)	

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Mail Stop Amendment  
Commissioner for Patents  
P.O. Box 1450  
Arlington, VA 22313-1450

**RESPONSE TO OFFICE ACTION**

Dear Sir:

This is in response to the Office Action dated November 1, 2004.

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## REMARKS

### **I. Status of the Application**

Claims 1-37 are presently pending in the application. Applicant gratefully acknowledges that claims 13, 14 and 25-28 have been allowed. Claims 1-12, 15-24 and 29-37 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Dunn et al., 4,655,777.

Applicant thanks the Examiner for discussing the pending claims with Applicant's agent on January 31, 2005. In accordance with the Examiner's request, the substance of the discussion is set forth below. Applicant's agent and the Examiner discussed that the claimed invention is directed to fibers sintered together to form a scaffold material, and that sintering is used to attach the fibers together. In contrast, Dunn et al. teaches the use of a polymer, not sintering, to bind their fibers together. Although Dunn et al. teaches sintering of ceramic fibers, it is in the context of preparing individual fibers for later use, not to attach them together to form a scaffold material (column 6, lines 60-65). That the fibers are not sintered such that they are attached together is evidenced by the fact that Dunn et al. tests the breaking strength of individual fibers after sintering (column 6, lines 66-67 and column 7, lines 1-3).

### **II. Claims 1-12, 15-24 and 29-37 Are Patentable Over Dunn et al.**

Claims 1-12, 15-24 and 29-37 remain rejected under 35 U.S.C. §103(a) as being unpatentable over Dunn et al., U.S. Patent No. 4,655,777. The Examiner is of the opinion that the Dunn reference discloses fibers that include ceramic powders and a biodegradable glass. The Examiner asserts that the Dunn reference teaches ceramic fibers that are sintered together. The

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Examiner concludes that the Dunn reference reads on the limitations of the instant claims.

Applicant respectfully traverses these rejections.

Applicant's claims are directed to sintered scaffold materials and sintered glass scaffolds wherein glass or ceramic fibers are *sintered together* to form the sintered scaffold. The result of sintering fibers together is that an openly porous scaffold is formed.

Dunn et al. neither teaches nor suggests the claimed sintered scaffold material. Dunn et al. sinters their ceramic fibers "to achieve coalescence and densification of the ceramic particles" in the fibers (column 5, lines 25-29), not to sinter them together, as required by the claimed invention. Nowhere does Dunn et al. teach or suggest sintering their fibers together to form a matrix. Instead, Dunn et al. teaches: (1) mixing their fibers with molten polymer; (2) mixing their fibers with polymer and allowing solvent to evaporate; and (3) coating their fibers with polymer by dipping or spraying (column 11, lines 1-17). Thus, Dunn et al. fails to teach each and every element of the claimed invention.

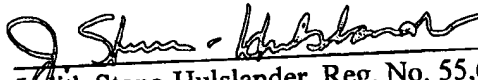
Accordingly, Dunn et al. fails to render the claimed invention obvious. Therefore, Applicant respectfully requests that the Examiner withdraw the rejection of claims 1-12, 15-24 and 29-37 under 35 U.S.C. §103(a).

III. CONCLUSION

Having addressed all outstanding issues, Applicant respectfully requests entry and consideration of the foregoing amendments and reconsideration and allowance of the case. To the extent the Examiner believes that it would facilitate allowance of the case, the Examiner is requested to telephone the undersigned at the number below.

Respectfully submitted,

Date: February 1, 2005

  
Judith Stone-Hulslander, Reg. No. 55,652  
BANNER & WITCOFF, LTD.  
28 State Street, 28th Floor  
Boston, MA 02109  
Telephone: (617) 720-9600



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DUPLICATE

PATENT  
ATTORNEY DOCKET NO. 01942-00003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

Eija Marjut Pirhonen

Serial No.: 09/981,676

Filed: October 16, 2001

Title: BONE GRAFTING MATERIALS

)  
)  
) Examiner:  
) Camie S. Thompson

)  
) Art Unit: 1774  
)  
)  
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Arlington, VA 22313-1450

TRANSMITTAL LETTER

In regard to the above identified application, we are transmitting herewith the attached:

1. Response to Office Action;
2. Request for Refund;
3. Copy of pages 7 and 12 from the September 2004 USPTO deposit account summary reports for Deposit Account 19-0733; and
4. Return postcard.

The Commissioner is hereby requested to refund \$634.00 and to charge any additional fees or credit overpayment to Deposit Account No. 19-0733.

Respectfully submitted,

Date:

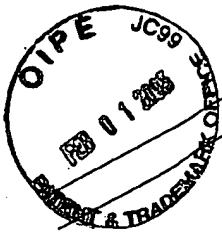
February 1, 2005

J. Stone-Hulslander  
Judith Stone-Hulslander, Reg. No. 55,652  
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USSN 09/981,676  
Express Mail Receipt No. EV 396914972 US

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ATTORNEY DOCKET NO. 01942-00003

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: Camie S. Thompson  
Art Unit: 1774

In re Application of  
Eija Mout Pirhonen

Serial No.: 09/981,676  
Filed: October 16, 2001

Title: ONE GRAFTING MATERIALS

Proposed Amendment  
Commissioner for Patents  
Box 1450  
Arlington, VA 22313-1450

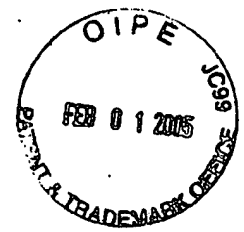
REQUEST FOR REFUND PURSUANT TO 37 CFR § 1.26(a)

Applicant filed a Request for Continued Examination and an Amendment and on September 9, 2004, less than three months after the mailing date of the Final Office Action mailed June 16, 2004. Applicant respectfully submits that no additional claim amendments, no extensions of time were requested at the time of filing the Request for Continued Examination and the Amendment and Response. Accordingly, only the Request fee of \$385.00 should have been due at the time the response was filed.

February 1, 2005

Statement

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Examiner:

Camie S. Thompson

Art Unit: 1774

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Mail Stop RCE  
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Arlington, VA 22313-1450

**AMENDMENT AND RESPONSE TO FINAL OFFICE ACTION**

Dear Sir:

This is in response to the Final Office Action dated June 16, 2004. Kindly amend the above-referenced application as follows. Applicant is also filing concurrently herewith a Request for Continued Examination.

Amendments to the claims are reflected in the claim listing, which begins on page 2 of this paper.

Remarks begin on page 8 of this paper.

09/21/2004 ASELLMAN 00000002 190733 09981676

01 FC:1201 344.00 DA  
02 FC:1203 290.00 CR  
USSN 09/981,676  
Express Mail Receipt No. EV 396914014 US

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Adjustment date: 03/31/2005 SDIRET01  
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